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ABSTRACT

The phenomenon of minimum competency testing (MCT) is explored, beginning with its origins in public concern for educational accountability. Three major themes appearing in the states enacting prescriptive legislation are described: state standards/state test (Florida): state standards/local test (Oregon): and local standards/local test (Colorado). Problems associated with the complexity of MCT are outlined, the most important being public perceptions: vocabulary of MCT: educational impact: political, legal and financial issues: implementation and measurement problems: and administration issues. The complexity of MCT also invites debate on both sides of the topic: therefore, the pamphlet attempts to briefly identify some of the popular MCT misconceptions. A bibliography for further reading is included. (GK)

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Minimum Competency Testing

By Rodney P. Riegle and Ned B. Lovell

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Introduction

This fastback explores the phenomenon of minimum competency testing (MCT). Because of the space limitations of the fastback, the discussions are necessarily brief. Those who wish to further pursue the issues involved should consult the bibliography.

Origins

While MCT is the latest movement in educational accountability, such testing programs are not new. For example, the British have used an examination system for well over a century. In this country, similar tests can be traced back over a century to the Boston Public Schools Common Exam and New York State's Regents' Examination. In the early part of this century it was commonplace for rural schools to administer a competency exam at the end of the eighth grade. In addition, older youths and adults have been taking the GED high school equivalency test since World War II. The Denver public schools have required high school graduates to pass competency tests in basic skills since 1961. Oregon passed the first statewide MCT legislation in 1973. It was first applied to the graduating class of 1978.

Causes

The push for MCT began in the early 1970s when a rash of studies appeared reporting that American students were performing considerably below previous levels. Employers began to complain that a growing number of job applicants lacked reading, writing, and mathematical skills for entry-level positions. Citizens charged that schools were

failing in their task and needed to be held accountable. In 1976 George Gallup found that 65% of the public supported the idea of required competencies as prerequisites for high school graduation. Other polls have found the percentage to be as high as 80%. A poll of school board presidents by the National School Boards Association found that 76% believed that every student should be required to pass a minimum competency test as a prerequisite for graduation. Public criticism has been fueled by well-publicized lawsuits in which ill-prepared students have sought (so far unsuccessfully) redress from the schools. The *Peter Doe* case (San Francisco, 1972) was the first malpractice case against a school district ever pursued in this country. Doe charged that his fifth-grade reading level at high school graduation was below the competency level necessary for holding a job. Although Doe lost his case, some educators view MCT as a fail-safe mechanism to prevent such suits in the future. Others see MCT as providing the necessary documentation to substantiate claims of educational malpractice. Some legal experts believe that Doe would have won his case if MCT had been in operation during his school years. Public interest in MCT has been supplemented by recent research on competencies, behavioral objectives, and the measurement of educational outcomes, all of which have become common in public education. This combination of forces has made MCT politically feasible.

Legislative Responses

The legislative response to public concern about education has been diverse, but at this writing 38 states have established some form of MCT. All 50 states have experienced legislative or state education department activity (study, planning, discussion, drafting, implementation) in the area of setting standards for schools or students. Federal MCT legislation has been proposed, but administration officials have opposed it on the ground that education is essentially a state and local function. Passage appears unlikely. However, Congress has included a provision in the renewed Elementary and Secondary Education Act that enables the Department of Education to award grants to local or state school systems which desire to develop educational proficiency standards.

Uses

The standards set by MCT are utilized in a variety of ways. An analysis of legislation and policy statements shows that standards are used to determine who should graduate, be promoted, exit early from high school, receive extra help, or be excused from specific courses. At the institutional level, standards may influence the type and scope of instruction, as well as levels of financial support. In addition, MCT is also used to evaluate school programs.

Control and uses of MCT apparently depend on the political climate and traditions existing in the various states. Some states permit decisions to be made at the local level while others have more centralized programs. Various states appear to be adopting MCT on the assumption that tougher graduation requirements will satisfy public criticism of education as well as meet the demand for greater educational accountability. Existing MCT programs measure competence in or knowledge of different areas including the three Rs, functional literacy, citizenship, consumerism, social responsibility, career development, employment skills, survival skills, free enterprise system, social studies, and natural science.

Special Interest Groups

The pressure for MCT is coming largely from citizens and legislatures. The large educational groups—National Education Association, American Federation of Teachers, American Association of School Administrators, National School Boards Association, Parent-Teacher Association—oppose MCT unless it is tied to remediation, local control, and increased funding. Teachers and administrators are suspicious that MCT will be used to evaluate them unfairly, erode local control, and become financially burdensome.

Competency-Based Education

Competency-based education (CBE) is a term that is frequently confused with minimum competency testing. However, they are actually two distinct movements that frequently use a common vocabulary. Both movements involve the setting of standards and testing, but CBE is also linked to specific theories of learning and teaching (e.g., be-

havioral objectives, individualization, etc.) while MCT is not. Instead of just a testing program, CBE calls for a fundamental restructuring of schools away from letter grades and academic credits and toward demonstrating competencies in skills needed in everyday life outside of school. Some CBE advocates have attempted to use the recent interest in MCT to boost interest in CBE. Some states (Oregon, for example) have programs that incorporate both MCT and CBE. (See Phi Delta Kappa's fastback 118 *The Case for Competency-Based Education*, by Dale Parnell.)

Basic Models

The old debate over local control of education is given fresh meaning by the emergence of MCT. The variety of systems of school governance has greatly influenced the way MCT is implemented in the various states. Competency standards are set by state governments in 20 states and by local governments in 16 states. The degree of centralization or local control built into the plans generally reflects the historical and political milieu of the various states. States with a history of centralization have been prescriptive and have exerted much state control. States with a history of local control have tended to provide guidelines to the local boards of education and then hold those boards responsible for implementation.

Analysis of the accountability legislation indicates that all states have identified mastery of the basic skills as the major goal of education. MCT is seen as a means of identifying those students who lack competence in the basic skills. Identification is needed so that remediation can be provided to fulfill the statutory guarantee (found in many states) of a minimum standard of performance for every student.

Three major themes appear in the states that have enacted prescriptive legislation: 1) the state has a duty to establish as a goal of state-supported education the attainment of a certain level of proficiency in skills necessary to function as an adult citizen; 2) a written test is the most practical method of determining the degree of goal achievement; and 3) test results should be utilized in educational decision making. Based on the assumption that standardized tests can accurately measure

student achievement, the intent of many statutes is to monitor intra-system effectiveness. The tests are intended to: 1) measure the quality of education; 2) provide information to assist educational decision making; 3) identify the effectiveness of instructional programs and assist in the evaluation of school personnel.

The accountability legislation generally anticipates and authorizes some action to be taken based on the results of the test. Four deliberate strategies have evolved: 1) test performance is the basis for awarding diplomas; 2) test performance is the basis for grade-to-grade promotion; 3) test performance identifies students who need remedial instruction; 4) test performance is the basis for evaluating program effectiveness and for developing educational improvement plans.

While there is considerable diversity in the legislation in the 38 states that have adopted MCT, three basic models have emerged.

Model A: State Standards—State Test
Model B: State Standards—Local Test
Model C: Local Standards—Local Test

MCT programs in Florida, Oregon, and Colorado typify these models; therefore, the status of MCT in these states will be discussed as illustrations.

Model A: MCT in Florida (State Standards—State Test)

Florida was one of the first states to implement MCT. Since the mid-Sixties Florida has had aggressive educational legislation that increased the role of the state in education and attempted to legislate accountability and increase the competency of students. The view in Florida is that the state has a responsibility to require minimum standards of achievement. In fact, Florida legislation guarantees that all citizens of the state will be minimally competent. The Florida Educational Accountability Act of 1976 states that the first priority of the public schools of Florida is to assure that all Floridians, to the extent their individual physical, mental, and emotional capacities permit, achieve mastery of the basic skills in reading, writing, and arithmetic.

Given this legislative mandate, state standards accompanied by a state test are almost a logical necessity. They key elements of the Florida legislation are:

1. A test of basic skills will be administered in grades 3, 5, 8, and 11 to identify student needs and find out how districts are doing at meeting standards. Students must master objectives to pass to the next level.

2. The Functional Literacy Test, which includes the areas of reading, writing, and arithmetic, must be passed for high school graduation. Three opportunities for passing the test are provided.

3. A Certificate of Attendance will be awarded to students who do not pass the Functional Literacy Test.

4. Students must meet the local district requirements regarding courses and credits in addition to passing the test.

5. Provisions for an early exit exam are included. Students choosing to take the exam must leave school if they pass the test.

6. Remediation programs are funded by the state. The Florida legislature provided $26.5 million for the 1978-79 school year for the purposes of remediation.

For at least three years much national attention has focused on minimum competency testing in Florida, and the rest of the country watched Florida as a test case of the effects of statewide literacy testing.

The Florida Educational Accountability Act requires students to meet state-established standards of proficiency in basic skills in order to earn a high school diploma. While MCT was not to be used to deny graduation from high school until 1979, preliminary field testing of the Florida test caused much alarm among professional educators and civil rights groups. The Florida test was given in October 1977 to 120,000 juniors as a field test; 36% failed mathematics and 8% failed communication. A disproportionate number of those students were black.

Since then the Florida program has been under legal attack, professional scrutiny, and even professional condemnation. The National Education Association sponsored a study of the Florida program and concluded that Florida's new graduation standards, while well intended, were implemented in a faulty manner. Specifically cited were 1) a lack of adequate communication about the program; 2) a lack of careful consideration of important ramifications of such a program; 3) a lack of planning to try to reduce or eliminate undesirable effects; 4) a lack of decentralization, by passing school building-level decisions

that genuinely affect teachers, students, and parents; 5) a disregard for the special problems of the black and poor; 6) punishment of students for the inadequacies of the educational system; 7) neglecting the improvement of the state's educational environment; 8) hasty implementation, i.e., imposing tests before standards were adopted; 9) a tendency to narrow curriculum and overemploy drill; 10) a tendency to emphasize testing of students and identification of failures, rather than diagnosis and remediation of inadequacies; 11) opening the way for teacher evaluation on the basis of competency test scores and undermining public trust in teachers and education. The NEA study also viewed with alarm the erosion of local control that comes with centralized state-controlled MCT.

A court ruling in *Debra P.* v. *Turlington* in July 1979 postpones for four years Florida's right to use a passing grade on a functional literacy test as a requirement for high school graduation. In his ruling on the case, U.S. District Court Judge George Carr held that the Florida test was not itself discriminatory, but he said minority students showed a disproportionately high failure rate as a result of attending segregated schools for the first three years of their formal education. The court said that the state cannot require students to pass a competency test before graduation until after "a necessary period of time to orient students and teachers to the new functional literacy objectives, to insure instruction in the objectives, and to eliminate the taint on educational development which accompanied segregation."

Based on this national exposure, criticism, and serious analysis, the Florida test is being modified to improve quality and eliminate any cultural, regional, or sexual bias. Latest results show significant improvement in the test scores by both black and white students. The Florida Commissioner of Education is confident that the testing program can survive all current challenges. Many Florida educators believe that the testing program will cause students and parents to take school more seriously. While the Florida test is being challenged in the courts and has been the butt of much professional criticism, it remains popular in Florida.

Model B: MCT in Oregon (State Standards—Local Test)

Unlike Florida, the Oregon Board of Education mandated compe-

tency requirements or standards but left it up to local districts to devise ways of meeting this mandate through tests and other performance indicators. The state retained attendance and units of credit requirements but further required that local districts determine and test minimum competencies needed to function successfully in society.

The Oregon program includes competency-based education (CBE) as well as MCT. However, the publicity given the concept of demonstrated competencies as a prerequisite for graduation encouraged many states to adopt the more restricted concept of MCT. The MCT movement was started in Oregon in 1972 with great hope that it would improve the accountability and quality of education. This hope was expressed in the November 1974 *Phi Delta Kappan* article by Dale Parnell, then state superintendent of schools.

> In requiring demonstration of competencies through real-life tests, the new graduation requirements serve as the performance indicators for determining how well educators are reaching the goals of schooling that prepare students for the roles of learner, producer, citizen consumer, individual and family member.

Public hearings that preceded legislation provided sufficient proof that the citizens of Oregon believed the schools should provide students with the skills to survive both economically and socially in the adult world. The state adopted competency standards and then placed the burden of implementation upon the local districts. All local plans and tests, however, had to be approved by the state to insure compatibility with statewide goals. State approval can be expensive. A report from Oregon's Educational Coordination Commission found that Oregon school districts spent from $26,500 to $173,200 in attempting to implement Oregon's competency graduation requirements.

The 1972 legislation required each district to adopt competency statements and performance indicators in the following areas by 1978: reading; listening; speaking; writing; analyzing; computing; scientific and technological processes; healthy mind and body; life-long learning; local, state, and national citizenship; responsibility for the environment; consumerism; functioning within an occupation or continuing education leading to a career. Some Oregon school districts developed more than 300 competencies; others, such as the Medford

school district, have identified as few as 23 broadly defined competencies.

Original deadlines have been extended. The class of 1978 was tested in only the basic skills of reading, listening, analyzing, speaking, writing, and computing. Certification in life role areas has been postponed as a graduation requirement until 1981. No student has yet been denied a diploma in Oregon because of MCT scores.

Model C: MCT in Colorado (Local Standards—Local Test)

Several states have avoided strong state mandates. Colorado, for example, passed legislation in 1975 whereby local boards of education *may* require proficiency testing for graduation. The state does provide the following guidelines that districts must follow if they adopt MCT and establish standards:

1. Instruction must be provided that will prepare students for the test;
2. Tests shall be given twice a year with initial testing in ninth grade;
3. Periodic reports must be sent to parents of students who fail the test;
4. Remedial and tutorial services shall be provided within the school day until the students pass the exam.

These guidelines were based on the experiences of the Denver Public Schools, which have required its graduates to pass a four-part Proficiency and Review Test since the early Sixties. The four parts of the test are mathematics, spelling, language, and reading. Tests in these four areas are given in December and April of each year for all students in grades 9 through 12. Remedial programs are provided to all students having deficiencies in the basic skills. The Denver sequence of instruction, testing, remediation, and retesting has been so successful that only 1.5% of the Denver students fail to obtain a high school diploma due to inability to pass the test.

This model may encourage experimentation or continuation of the status quo. That is, it allows districts to take many different approaches or to do nothing. Jefferson County, west of Denver, is one district that has chosen to experiment. This district has achieved national recogni-

tion for its MCT program, which includes criterion-referenced tests, individualization, and an instructional management system to document achievement of competencies.

Illinois, another example of Model C, provides no guidelines whatsoever. However, technical assistance and advice are provided by the State Board of Educators. Presently 25% of Illinois school districts are implementing MCT and another 55% are investigating it.

There is much variety in MCT. No two states have taken identical action. In fact, competency is defined differently in all 38 states that have adopted MCT. There is also little agreement on how to measure competency. Procedures, policies, and strategies vary from state to state. In spite of this diversity, three basic models have emerged. The key distinction between the models is the degree of state/local control. Yet to be determined is whether the degree of state/local control has a significant impact on educational innovation or achievement.

Major Problems and Issues

Because MCT is such a complex phenomena there are a number of problems and issues associated with it. This section briefly outlines some of the most important ones.

Public Perceptions

Part of the impetus for MCT stems from public perceptions that American schools are bad and getting worse. However, numerous studies indicate that this extreme condemnation is not justified. For example, recent data show that:

1. The percentage of 17- and 18-year-olds able to pass a reading test given by the armed forces has risen from 45% during World War I, to 65% during World War II, to 80% at present.

2. Upward shifting norms of both IQ and achievement tests in the lower grades since World War I suggest that the average 9-year-old today is the intellectual peer of the average 11-year-old at the time of World War I.

3. Greater numbers of people have reached a higher level of literacy than ever before in our history.

Two additional facts need to be emphasized. First, the much publicized decline in SAT scores is an almost meaningless statistic for MCT advocates because students who take the SAT are college bound and unlikely to be affected by MCT. Second, public concern over the value of a high school diploma has arisen only because of the overwhelming *success* of our public schools. Since 1910, the percentage of students

graduating from high school has risen from 9% to 75%. Ironically, increased success breeds increased expectations.

Vocabulary of MCT

The vocabulary surrounding MCT presents problems in communicating about it. First, the term "competence" has a positive emotional aura much like "motherhood" or the "American way." Who can be against competence? In addition, there is considerable vagueness surrounding many concepts central to MCT. For example, minimum competence, survival skills, life skills, functional literacy, etc., are all rather vague terms. Many critics of MCT argue that there is no universal standard that can be applied to all people, regardless of occupation, geographic location, level of education, and so on. Indeed, the definition of minimum competence varies greatly among those school districts that have adopted MCT. Depending upon the district, students must master from three to several hundred competencies. Students can demonstrate competence in writing by writing three paragraphs with no more than five errors; by writing a hundred-word essay with no more than five errors in spelling, three in capitalization, and three in punctuation; by taking a multiple-choice test of grammar and punctuation; or by successfully completing a job application form. Thus, the very language of MCT contains a number of important problems that are frequently overlooked and tend to cloud the debate about the impact of MCT on students, teachers, and curriculum.

Educational Impact of MCT

This issue can be divided into three parts: the possible impact of MCT on 1) teachers, 2) students, and 3) the curriculum.

Critics fear that MCT will cause teachers to "teach to the test" and ignore or neglect other equally important material that does not appear on the test. Advocates believe that MCT will focus attention on basic skills that have not received enough attention from teachers. Some advocates also argue that teachers do not receive sufficient training in the basics or in diagnosis and remediation and urge increased certification standards as well as inservice training in these areas.

When MCT is tied to promotion and graduation the impact on stu-

dents is obviously great. The biggest problem is deciding what to do with students who have spent four years in high school but cannot pass the test. Certificates of attendance or "special" diplomas (for the handicapped) have been suggested. However, critics feel that this will lead to second-class status for certain groups of students and fear that MCT in the early grades will be used more for this kind of "tracking" than for diagnosis and remediation. They also fear that students will view the minimum standards as ideal standards and thus perform at a lower level than they are capable of. In addition, when MCT is locally controlled and varies from district to district, transfer students become a problem. Critics predict a great deal of transferring for marginal students if standards vary greatly in difficulty in different districts.

Critics fear that MCT will cause a narrowing of the curriculum as well as more emphasis on testing, record-keeping, and remediation with less time spent in regular classes. Some advocates dispute these claims while others believe that this will increase accountability and lead to desirable curricular reform.

Political Issues

Most state constitutions include a provision requiring the state to provide an effective system of schools. Some MCT advocates justify MCT as a means to this end. However, some MCT critics question whether it is possible to legislate learning or achievement. They distinguish between policies designed to equalize educational opportunity (which they view as a legitimate political goal) and policies designed to promote educational achievement (which they view as a more technical problem that cannot be solved by political fiat). MCT proponents counter this by arguing that education today is already heavily politicized and thus the only real question is how that process will occur, not whether it will or should occur.

A second essentially political debate concerns the locus of MCT control: local versus state. Those who favor state control argue that local control will lead to meaningless tests with vastly different content and standards. Strong, uniform legislation, they say, is necessary to stimulate meaningful reform and produce data that allow comparison and evaluation of schools. Those who favor local control argue

that local needs and priorities vary and therefore it is unwise to set a single standard for an entire state or to attempt to generate comparisons among schools that may be invalid. Moreover, they argue that local boards are ultimately accountable and thus should control testing programs.

A third politically sensitive question revolves around how high the minimum standard should be set. No matter what approach is taken, in the final analysis, the determination of a cut-off score is largely political. If practically no one fails then the test becomes meaningless and officials will be criticized for having set standards too low. If too many students fail then the political, educational, and financial costs will not be acceptable.

Legal Issues

These issues can be divided into four categories: 1) phase-in period, 2) test/instruction match, 3) racial discrimination, and 4) handicapped students.

Traditional notions of due process require adequate prior notice of any rule that could cause irreparable harm to a person's educational or occupational prospects. Since MCT could have such an effect, it is imperative that students be aware of the system and its potential impact on their lives. There is no legal precedent for "adequate prior notice" in this area, but estimates range from three to 12 years. Due process also requires that what is tested must be included in curriculum objectives and actually be taught.

There is some evidence that a disproportionate percentage of black and Hispanic students will be adversely affected by MCT. Title VI of the Civil Rights Act of 1964 prohibits "practices that have the effect of discriminating against individuals on the ground of race, color, or national origin." The Department of Education requires "affirmative steps" to meet the needs of non-English-speaking students. Legal challenges may also arise if "segregation" or "tracking" occurs as a result of remediation programs for students who fail MCT. The NAACP has challenged Florida's MCT program in the courts. HEW's Office for Civil Rights is presently considering a policy statement on MCT.

The courts have ruled that all handicapped students have the right

to an education under the equal protection clause of the Fourteenth Amendment. The Education for All Handicapped Children Act, P.L. 94-142, requires that schools provide this equal protection by the means of an individualized education program (IEP) tailored to each child's special needs. While the IEP is not considered a binding contract by the Bureau of Education for the Handicapped, it is clear that Congress intended for the IEP to bring an element of accountability into special education programming. If the goals established by a student's IEP are different from that of a MCT program and passing the test is a prerequisite for a high school diploma, the school district has a problem. Changing the IEP may be one choice, excusing the student from the test is another. Either option will probably be contested by various special interest groups. Section 504 of the Rehabilitation Act of 1973 provides that students may not be excluded from educational programs because of a handicap. Handicapped students must be individually accommodated. Steps must be taken to insure equal opportunity for promotion and graduation.

Financial Issues

The diversity of MCT plans and the rapidity of implementation has left the topic of costs as one of the least explored areas in the current MCT literature. Common sense indicates that there are certain items that must be financed regardless of the model chosen. Economies of scale would generally make Model A (State Standards—State Test) the most cost-efficient alternative. However, cost may be given only minimal consideration if other criteria (e.g., political, educational, social) are considered more important or when emotional overtones are present.

Some advocates of MCT believe such a test will make education more accountable, which will lead to more efficiency, which in turn will result in tax savings. This result is not yet evident. Justifying educational programs on a cost-benefit basis has not been extremely fruitful because of the qualitative nature of the schools' outputs. Cost items that are generally associated with MCT programs are:

1. Set-up costs of legislation—hearings, data collection, and studies;

2. Implementation costs—piloting, modeling of proposed legislation;
3. Information costs—preparing and revising plans to meet legislative mandates;
4. Administrative—record keeping and reporting expenses;
5. Enforcement costs—staff to monitor, evaluate, and police;
6. Test development costs;
7. Test administration costs;
8. Remedial programs.

In addition, there may be an indirect cost in terms of support lost to programs previously receiving funding. The anticipation of and fear of program curtailment has intensified the debate about MCT.

This fastback does not allow space for full discussion of all cost items. Some perspective will be provided by examining several key items basic to all MCT programs.

The development and pilot testing of test instruments is costly if done correctly. Cost estimates for developing a test, conducting pilot studies, revising the test, and printing vary from $25 to $210 per test item. Average development cost will exceed $100 per item. Kentucky found that it cost $6 per pupil to develop and pilot its MCT program. California spent $2.5 million in creating models for school districts to use in developing local programs. States can save money if they delegate the task of test development to local districts. While this would shift the financial burden, duplication of effort could easily increase the total cost. An even greater concern is the quality control of locally developed tests. Some local districts can ill afford this added expenditure ($26,500 to $173,000 in Oregon, for example). Some districts have chosen to minimize this cost by adopting standardized tests in lieu of developing their own. However, standardized tests will invariably cover material not taught to students of the district. Consequently, this approach is suspect both legally and educationally. Many states are moving toward item banking and the utilization of consortiums to share expenses of test construction.

Simply giving a test is of little benefit to anyone. The data collected must be interpreted, analyzed, and used by the classroom teacher and policy makers. The actual cost of administering and monitoring test

programs will vary with the amount of scoring, reporting, and record keeping required. These activities can require additional personnel or create a drain on existing services. In addition, teachers and administrators need training in the purposes and uses of the MCT program. They also need time and budgets to develop remedial programs.

While not all states provide funds for remediation, this has turned out to be the high cost item in most states. American public schools accept responsibility for all students. Legally, there may be no obligation to provide maximum help to those students who have failed. Politically, it must be done. Florida is now spending more than $26 million annually to help remediate students who fail MCT. New Jersey spent $30 million in 1976-77 for compensatory education. This figure was close to double by 1979. The state of Washington is spending in excess of $85 million for remedial programs in reading and math. Some authorities have recommended even higher figures for other states.

While it is theoretically possible to develop comparatively low cost MCT programs, the strain of achieving statewide or districtwide legitimacy, gaining the support of professional and ethnic groups, and providing remediation programs has made the process costly in actual practice.

Implementation Problems

Once the decision to adopt an MCT program has been made, there are several implementation problems to be faced. First, a decision must be made about which competencies to test. Standard school subjects (art, science, English, etc.), basic skills (reading, writing, arithmetic), life skills (balancing a checkbook, filling out a job application), survival skills (building a fire, swimming), or some combination of the above are among the most popular alternatives.

Second, the method of measuring the competencies must be determined. Classroom paper and pencil tests, school products and performances (essays, paintings, automobile brake jobs, etc.), simulations (simulated job interviews in the classroom), and actual performances (real job interviews) are some of the choices. Paper and pencil tests are faster and easier to administer but are not necessarily better measures to predict success in later life.

Third, the number and timing of the tests must be considered. The possibilities range from a single test at the end of the twelfth grade to tests every year (grades 3, 5, 8, 11 are common levels). In addition, the tests can be given either at the beginning or end of the school year. The number and timing of retests is also important. Remedial programs will obviously be affected by these decisions.

Fourth, the establishment of the cut-off score or minimum standard is a crucial issue. This will be primarily a political decision, depending on how many students a school (or state) can afford to fail or remediate.

Fifth, some thought needs to be given to the uses of MCT results. Possibilities include the evaluation of individual students, teachers, schools, school districts, or an entire state system. Note that any of these alternatives can be employed without tying MCT to promotion or graduation.

Sixth, the problem of failures requires some attention. Differentiated diplomas, certificates of attendance and "special" diplomas have all been suggested. Schools with high failure rates may also require special consideration.

Measurement Problems

The technology of testing is fraught with many problems. The American Psychological Association and the National Education Association have both adopted resolutions calling for the suspension of MCT until the tests can be purged of sociocultural bias. Both Florida and North Carolina have legal challenges to their competency programs pending.

The general concerns over the imperfections of testing are magnified by MCT because of the sometimes severe consequences to the individual student failing the test. In addition, students are often *required* to take the tests, which are paid for with *public* funds. When the burden of proof for learning is placed on the student, the courts require fair, equitable, and relevant tests.

Three measurement problems that have caused the most legal and professional consternation are 1) reliability, 2) validity, and 3) bias.

A test is said to have reliability if repeated use produces consistent results. To be more precise, a test should consistently produce similar

results when similar kinds of students are measured, regardless of who administers the test. Hastily developed competency tests can easily lack reliability and lead to inconsistent results that produce legal and political problems. Adequate time for field testing becomes very important.

Test items have validity if they measure what is intended to be measured. Crucial to validity is a clearly specified set of objectives. Without specific objectives, the development of a valid test—one that will accomplish its purposes—is impossible. The competencies that are tested must be included in the curriculum. If there is a disparity between curricular objectives and test objectives, the test is invalid. If the competencies tested are not part of the school curriculum, it would be unfair to deny a person a diploma because he or she did not possess such competencies. In addition, instructional validity requires a comparison of test objectives and items with actual classroom activities and topics. It may not be enough to demonstrate that the competencies tested are part of the curriculum. Test items should measure topics actually taught. Cautious administrators will want to be able to prove that an individual pupil has received instruction related to the competencies tested.

Tests should show no social, cultural, sexual, or ethnic bias.

While the problems of measurement are real, many have decided that MCT is necessary or inevitable even if tests are imperfect. Others, however, advocate delaying implementation of MCT until important measurement problems are resolved. Still others believe that many measurement problems will never be resolved and thus oppose MCT on these grounds.

Administration Issues

Overseeing the change to MCT presents several challenges to school administrators. Because of the nature of the enterprise most major changes in education involve political considerations. Generating political support for MCT requires the slow process of informing and involving the community. The two groups who appear most threatened by MCT are minorities and teachers. Special attention must be given to these groups if political trouble is to be avoided.

MCT has many implications for the total school organization.

Questions that should be asked in the early planning stages include:

1. What instructional changes should be made?
2. How will we monitor and document the teaching of the competencies?
3. How can we insure teacher support?
4. What will be the role of teachers in the development of MCT?
5. Will the test be locally developed or a standardized instrument?
6. How will we evaluate MCT?
7. Who will develop the remediation program?
8. How much money will be budgeted for remediation?
9. Which teachers will handle remediation?
10. What grades will be tested?
11. Will the handicapped be tested?
12. What year will the requirements go into effect?
13. When will the tests and retests be given?

Two other issues need to be kept in mind. First, teachers will need inservice education to facilitate the transition to MCT, including instruction in diagnosis, remediation, and monitoring. Accurate record keeping may well be a most complex and time-consuming task. Second, keeping current on MCT legal developments will help administrators avoid legal problems.

Common Misconceptions

Because MCT is an emotional topic, arguments are frequently advanced on both sides of the topic without reference to documentation. Many of these arguments are based primarily on the hopes or fears of individuals and groups rather than on serious analyses of the issue. This section will identify some popular misconceptions associated with MCT.

There is a certain irony in that one person's fear concerning MCT may be another person's hope. While some fear MCT because it may strengthen state control, others hope MCT is implemented precisely because they want increased state control. Some fear MCT because it might curtail athletics and music; others favor MCT because they hope it will deemphasize these extracurricular activities. Thus, the MCT debate is particularly difficult to untangle and both advocates and critics suffer from serious misconceptions.

Hopes

Various people and groups have high hopes for MCT for a number of reasons. The following statements are among the most commonly heard.

1. *MCT will stop social promotion and insure that everyone can at least read and write.*

First, there are no secret recipes for learning or teaching. This is especially true for such complex skills as reading and writing. The most that can be hoped for is that all those who pass MCT will have some minimum skills in those areas at test time. Second, at least 15 states

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have not tied MCT to promotion or graduation. Thus, in those states social promotion and graduation may continue to occur despite failure by students on a minimum competency test.

2. *MCT will make teachers accountable for teaching the basic skills.*

There are some important differences between accountability in education and in other fields. For example, measuring learning is more difficult than measuring how many cars are built or sold. Public school teachers have little control over which students enter school. While we can make sure that teachers devote a certain amount of time to *teaching* basic skills, there is no way to make students *learn* if they lack either the ability or desire. In addition, some methods of implementing MCT may not greatly increase the accountability of individual teachers. A single test given in the eleventh or twelfth grade, for instance, will add little to the accountability of kindergarten and first-grade teachers, especially if the elementary school and the high school have different boards of education.

3. *With grade inflation and ability grouping, I don't know what an A means anymore. I need to know exactly what my children have learned and not learned. This is why I'm in favor of MCT.*

This a good example of suggesting a solution without clearly identifying the problem. If the goal is better reporting of skills learned and not learned, then the most logical approach would be to improve the traditional report card. It must also be kept in mind that MCT is only a gross estimation of learning in certain areas. The areas not measured by MCT (social skills, personality traits, etc.) may be even more important to future success than the ones being measured.

4. *The three Rs are all I've needed in life! Our schools have become academic cafeterias that let the students pick fun but meaningless courses. MCT will restore basic education to the schools.*

MCT by itself is simply a measuring device that can be adopted by a school system without significant changes in curriculum. The Denver school system after 17 years of MCT still offers 954 junior high and high school courses. In addition, each year greater sophistication is required to cope with today's world, which in turn changes the skills that are considered basic. For example, in a few years computer skills

may be basic. An overloaded curriculum does not necessarily mean that the basics are not there, nor that the curriculum is filled with meaningless courses. State mandates and school board policies have played a major role in the expansion of school curriculum. If priorities or limitations are needed, legislative or board action should be requested in addition to (or even without) MCT.

5. *Today's students can't even fill out a job application! MCT will test skills from the real world. Everyone should know how to get a job and support a family.*

While it is true that some students have difficulty filling out job applications, it is not true that most do. The National Assessment of Education Progress (NAEP) estimates that 13% of the nation's 17-year-old high school students are functionally illiterate. NAEP defines functional literacy as being able to perform tasks necessary to function in American society (such as reading a newspaper or taking a driver's license test). Although many people would argue for the importance of getting a job and supporting a family, it is not self-evident that this should be the major focus of the schools. Indeed, it is difficult to determine what "real world" skills *all* occupations share. Moreover, MCT may or may not test those skills; the majority of existing MCT programs test only the three Rs.

6. *Most high school graduates are really unprepared. MCT will restore the value of the high school diploma.*

We are teaching more kids more skills than any society in the history of the world. Recent data show that the percentage of 17- and 18-year-olds able to pass a government reading test has risen from 45% in World War I, to 65% in World War II, to 80% at present. During the same period the percentage of students who graduate from high school has risen from 9% to 75%. It seems ironic that as more and more people become high school graduates, the expectations of the public are increased. The more successful schools are, the less value is assigned to a high school diploma. The value of a high school diploma is based on factors other than student learning. When few people graduated from high school, it was a valued achievement. Now that most people graduate, it has little comparative value, regardless of the competence or lack of competence of the graduate.

7. *Unlike many educators I favor MCT. I know social promotion is generally a way for teachers to get rid of problem students, particularly minorities. Consequently, these students are pushed up and out and nobody cares if they haven't been trained or don't know how to read. MCT will force all teachers to pay more attention to the diagnosis of weaknesses and remediation, especially among problem students or minorities.*

Racial prejudice is widespread in many areas of our society. Unless specific steps are taken, we have no assurance that MCT will cause teachers to pay more attention to the diagnosis and remediation of learning problems among minorities. It is conceivable that MCT will identify problem students only to have them placed with the worst teachers or in less effective curriculum tracks. MCT could in fact become a new form of segregation—racial as well as academic—if it is not tied to an effective remediation program and monitored by sensitive administrators.

8. *Schools are notorious for their lack of coordination between grades or schools. MCT should force educators to coordinate better their programs from grade to grade and school to school.*

Potentially, MCT may result in even poorer coordination. Many MCT programs are locally controlled and developed, in some cases building by building. This can lead to inconsistent goals and standards between elementary and secondary schools in the same district. The likelihood of this is even greater when the elementary and secondary schools fall under the jurisdiction of separate boards. The problem of coordination is especially acute in states that have large numbers of districts (Illinois, for example, has over 1,000 districts).

9. *If citizens are involved in establishing the minimums and identifying priorities, they will naturally provide greater support for schools and education.*

There is a difference between participation and support. Many citizens are interested in MCT precisely because they have serious doubts about our educational system. Establishing representative citizen involvement in the discussion of educational priorities is a desirable but most difficult task. Attracting some groups to participate in this task has confounded many school districts for decades. There is

little hope that MCT by itself is a strong enough magnet to attract these groups into discussion or involvement, let alone support, of educational efforts. Moreover, if not properly planned and monitored, citizen involvement can easily exacerbate tensions among groups and individuals and become a divisive issue.

Fears

There are as many arguments advanced against MCT as in favor of it. The following are perhaps the most common fears, but they do not constitute an exhaustive list.

1. *MCT will destroy higher learning in our high schools. If MCT is required, teachers will teach only the basic skills and this will trivialize the curriculum. High school graduates will be only minimally competent.*

MCT can be used to diagnose those students who need further instruction in the basics. Obviously, not all students fall into this category. Those who have mastered the basics may, of course, be allowed and encouraged to choose more advanced courses. Additional requirements in "nonbasic" areas can also be mandated to assure that advanced courses and requirements remain part of the curriculum. Various existing MCT programs test such diverse areas as economics, social studies, natural science, government, as well as the three Rs.

2. *With the adoption of MCT, testing will become the main objective of school. Critical thinking, attitudes, and creativity will be ignored because they are difficult to test.*

MCT will not mean that a school will offer only a minimum curriculum. The Florida experience indicates that testing need not become the main objective of the schools. Economic pressures, rather than MCT, have been the worst enemy of advanced courses and affective skills. Fiscal constraints have mandated cutbacks in all areas. Moreover, existing MCT programs in other states test such difficult to measure areas as personal development, social responsibility, and problem-solving ability.

3. *Quality education will suffer if MCT is adopted. Athletics, music, fine arts, and other nonbasic areas will be eliminated. Unique*

and individual needs of students will be shunted aside. Bilingual, handicapped, and gifted students will be abandoned.

Even if MCT focuses on the basics or on those things that are common to all students, this does not mean that everything else will be abolished. It may mean only that certain general priorities have been established. MCT may be implemented at the same time as other extracurricular activities receive increased support. Moreover, each subject mentioned above is supported by strong and vocal pressure groups. It is doubtful that MCT alone will cause their demise.

4. *There is no doubt MCT will greatly strengthen state control of education at the expense of local control.*

There are innumerable forms of MCT. At least seven states have MCT programs that are locally developed, administered, and controlled. This obviously strengthens rather than weakens local control. Other states have adopted MCT programs that are developed, administered, and controlled by the state. Obviously, these programs have the potential to strengthen the influence of state government. But nothing is automatic. MCT can be used to strengthen local or state control, depending on how it is implemented.

5. *I resent that some unproven test developed in New Jersey or Iowa is being used as the sole basis of awarding students diplomas or evaluating the performance of teachers or administrators.*

The choice of test and utilization of results is frequently left up to the local district, and the test itself may in fact be locally developed. Moreover, MCT is not necessarily tied to graduation or to the evaluation of teachers. In fact, MCT is not generally used to evaluate teachers or administrators.

6. *MCT is just another racist plot. It is simply a ploy to keep minority students from getting diplomas and competing with whites.*

It is possible, but not necessary, for MCT tests to be racially biased. Such tests should obviously not be used. However, MCT may be beneficial to those minority students who are ignored and pushed up and out without adequate instruction. MCT may be utilized to protect the rights of minorities by preventing this *if* it is tied to effective diagnosis and remediation.

7. *MCT can be an evil thing. Many students will fail and simply*

drop out. This will leave the country sitting on a powder keg of bitter, uneducated, unemployed youths.

The pattern in existing MCT programs has been for a large percentage of students to fail initially but for the percentage to be reduced dramatically by graduation time. Denver, which has a 17-year-old MCT program, has a 1.5% failure rate after remediation and retesting. It all depends on how high the minimums are set and how effective the remediation is. Again, this is frequently left up to the local district.

8. *It is immoral to force people to take a test, fail them, and leave them sitting there. But remediation is too costly for a local district and the state won't provide the extra money.*

Not only is "MCT without remediation" immoral, it may also be illegal. Some states with MCT programs have made provisions for remediation. Florida, for example, allocated approximately $26 million for remediation in 1978-79. Even if money for remediation is not supplied at the state level, it may still be possible for local districts to provide low-cost remediation by shifting priorities and staff assignments.

9. *MCT will allow those who pass the test to graduate early from high school. But there is something to be said for spending four years in high school. It's part of growing up. Besides, if you graduate early, how will you know which class reunion to attend? Early graduation would also lead to a drastic reduction in the number of teachers needed.*

Having German measles is also part of growing up, but it is neither necessary nor desirable. In addition, MCT does not have to be tied to early graduation. The two states—California and Florida—that allow early graduation use a separate and more rigorous test as the qualification test for early graduation. Both states found that only a small number of students (1%) were interested and capable of utilizing this option. Thus, there has been no significant impact on teacher employment.

Conclusion

Although MCT has been discussed in every state of the Union, it has not been adopted in all states and may have reached a high-water mark. At least four states have rejected MCT. In the states that do have MCT, most debates are now concerned with implementation issues. Inservice MCT workshops are becoming increasingly popular with local school districts. Because each state has a unique set of circumstances, it is to be expected that the various MCT programs will be moving in many different directions.

MCT has been a rapidly growing movement with nearly all activity occurring in the past five years. As a result, research on MCT has lagged behind. While there is very little hard data on the impact of MCT, a growing body of literature has developed. The selected bibliography that follows represents only the tip of the iceberg. The National Institute of Education is in the beginning stages of a four-year study on the impact of MCT programs.

The MCT movement has been compared to a constantly changing landscape. Under such conditions, it is clearly impossible to predict exactly what its long-term impact on education will be. Contributing to the confusion is the fact that MCT emerged for diverse reasons and with differing approaches. Because it has been such a short time since MCT first emerged and with implementation deadlines scheduled all the way up to 1985, it may be years before any reasonable assessment of impact can be made. This fact, coupled with uneven implementation and/or financing, court cases, and other confounding variables,

may well prohibit any final conclusions about MCT. Any assessment of the impact of MCT must be tempered with the knowledge that new fads and terms tend to rise quickly in education, only to be rather short-lived. It must be noted, however, that even if MCT turns out to be a fad, the political forces that gave rise to MCT may require attention for quite some time. Moreover, because MCT has attained the status of law in many states, this movement may have more impact on education than most fads. In the final analysis, it is quite likely that the MCT movement will have both positive and negative effects. Thus far, neither the worst fears of MCT critics nor the highest hopes of MCT advocates have been realized.

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